

CLAIM Amendments

1. – 25. (Canceled).

26. (Currently Amended) An oligonucleotide or physiologically tolerable salt thereof, comprising a sequence selected from SEQ ID NO. 2, SEQ ID NO. 3, SEQ ID NO. 4, SEQ ID NO. 5, SEQ ID NO. 6, SEQ ID NO. 7, SEQ ID NO. 8, SEQ ID NO. 9, SEQ ID NO. 10, SEQ ID NO. 11, SEQ ID NO. 12, SEQ ID NO. 13, SEQ ID NO. 14, SEQ ID NO. 15, SEQ ID NO. 16, SEQ ID NO. 17, SEQ ID NO. 19, and SEQ ID NO. 20, wherein the oligonucleotide has a length of 7 to 17 nucleotide units.

27. (Previously Presented) An oligonucleotide according to claim 26, wherein the oligonucleotide has one or more modifications.

28. (Previously Presented) The oligonucleotide according to claim 27, wherein the modifications are independently selected from the group consisting of:

- a) the replacement of a phosphoric acid diester internucleoside bridge by a modified phospho bridge,
- b) the replacement of a phosphoric acid diester internucleoside bridge by a "dephospho" bridge,
- c) the replacement of a sugar phosphate unit by another unit,
- d) the replacement of a β -D-2'-deoxyribose unit by a modified sugar unit,
- e) the modification or the replacement of a natural nucleoside base by a modified nucleoside base,
- f) the conjugation of the oligonucleotide to a molecule which adapts the properties of the oligonucleotide to a specific requirement,

- g) the conjugation of the oligonucleotide to a 2'5'-bonded oligoadenylate or a derivative thereof, optionally conjugated via a linker, and
- h) the introduction of a 3'-3' or 5'-5' inversion at the 3' or 5' end of the oligonucleotide.

29. (Currently Amended) The oligonucleotide according to claim 28, wherein the oligonucleotide contains one or more modifications independently selected from the group consisting of:

- a) the replacement of a phosphoric acid diester internucleoside bridge by a modified phospho bridge,

where a modified phospho bridge is a phosphorothioate, phosphorodithioate, NR¹R^{1'}-phosphoramidate, boranophosphate, phosphate-(C₁-C₂₁)-O-alkyl ester, phosphate-[(C₆-C₁₂)aryl-(C₁-C₂₁)-O-alkyl] ester, (C₁-C₈)alkylphosphonate, or (C₆-C₁₂)arylphosphonate bridge,

where

R¹ and R^{1'} are independently selected from the group comprising hydrogen, (C₁-C₁₈)-alkyl, (C₆-C₂₀)-aryl, (C₆-C₁₄)-aryl-(C₁-C₈)-alkyl, or

R¹ and R^{1'}, together with the nitrogen atom carrying them, form a 5- to 6-membered heterocyclic ring which can additionally contain a further heteroatom from the group consisting of O, S, and N;

- b) the replacement of a phosphoric acid diester internucleoside bridge by a "dephospho" bridge,

Application No. 09/554,267

where a "dephospho" bridge is a formacetal, 3'-thioformacetal, methylhydroxylamine, oxime, methylenedimethylhydrazo, dimethylenesulfone, or silyl bridge,

c) the complete or partial replacement of the sugar phosphate backbone (replacement of sugar phosphate units) by other units,

where another unit is suitable for synthesizing a "morpholine derivative" oligomer, a polyamide nucleic acid ("PNA"), or a phosphomonoacid ester nucleic acid,

d) the replacement of a β -D-2'-deoxyribose unit by a modified sugar unit,

where a modified sugar unit is an α -D-2'-deoxyribose, L-2'-deoxyribose, 2'-F-2'-deoxyribose, 2'-O-(C₁-C₆)alkylribose, 2'-O-(C₂-C₆)alkenylribose, 2'-[O-(C₁-C₆)alkyl-O-(C₁-C₆)alkyl]ribose, 2'-NH₂-2'-deoxyribose, β -D-xylofuranose, α -arabinofuranose, 2,4-dideoxy- β -D-erythro-hexopyranose, a carbocyclic sugar analog, an open-chain sugar analog, or a bicyclo sugar analog,

e) the replacement of a natural nucleoside base by a modified nucleoside base,

where a modified nucleoside base is 5-(hydroxymethyl)uracil, 5 aminouracil, pseudouracil, dihydrouracil, 5-(C₁-C₆-alkyl)uracil, 5-(C₂-C₆)-alkenyluracil, 5-(C₂-C₆)-alkynyluracil, 5-(C₁-C₆)-alkylcytosine, 5-(C₂-C₆)-alkenylcytosine, 5-(C₂-C₆)-alkynylcytosine, 5-fluorouracil, 5-fluorocytosine, 5-chlorouracil, 5-chlorocytosine, 5-bromouracil, 5-bromocytosine, a 7-deaza-7-substituted purine, or a 7-deaza-8-substituted purine,

f) conjugation to a molecule,

Application No. 09/554,267

where the molecule is a polylysine, intercalator, fluorescent molecule, crosslinker, lipophilic molecule, lipid, steroid, vitamin, polyethylene glycol, oligoethylene glycol, (C₁₂-C₁₈)-alkyl phosphate diester, or -O-CH₂-CH(OH)-O-(C₁₂-C₁₈)-alkyl group,

- g) conjugation to a 2'5'-linked oligoadenylate or a derivative thereof where a 2'5'-linked oligoadenylate or a derivative thereof is a 2'5'-linked triadenylate, 2'5'-linked tetraadenylate, 2'5'-linked pentaadenylate, or cordycepin (2'5'-linked 3'-deoxyadenylate), where the conjugation optionally takes place via a linker and where the 5'-end of the 2'5'-linked oligoadenylate optionally contains a phosphate, diphosphate, or triphosphate group, and
- h) the introduction of a 3'-3' or 5'-5' inversion at the 3'- or 5'- end of the oligonucleotide.

30. (Previously Presented) The oligonucleotide according to claim 28, wherein 1 - 5 terminal internucleoside bridges are modified at the 5- or 3'- end of the oligonucleotide.

31. (Previously Presented) The oligonucleotide according to claim 28, wherein the internucleoside bridges located at the 3'- or 5'- end of nonterminal nucleosides which contain a pyrimidine base are modified.

32. (Previously Presented) The oligonucleotide according to claim 28, comprising a sequence selected from SEQ ID NO. 21, SEQ ID NO. 22, SEQ ID NO. 23, SEQ ID NO. 24, SEQ ID NO. 25, SEQ ID NO. 26, SEQ ID NO. 27, SEQ ID NO. 28, SEQ ID NO. 29, SEQ ID NO. 30, SEQ ID NO. 31, SEQ ID NO. 32, SEQ ID NO. 33, SEQ ID NO. 34, SEQ ID NO. 35,

Application No. 09/554,267

SEQ ID NO. 36, SEQ ID NO. 37, SEQ ID NO. 38, and SEQ ID NO. 39, where "s" in the recited SEQ ID NOs. indicates the position of a modified internucleoside bridge.

33. (Previously Presented) The oligonucleotide according to claim 28, comprising a sequence selected from SEQ ID NO. 40, SEQ ID NO. 41, SEQ ID NO. 42, SEQ ID NO. 43, SEQ ID NO. 44, SEQ ID NO. 45, SEQ ID NO. 46, SEQ ID NO. 47, SEQ ID NO. 48, SEQ ID NO. 49, SEQ ID NO. 50, SEQ ID NO. 51, SEQ ID NO. 52, SEQ ID NO. 53, SEQ ID NO. 54, SEQ ID NO. 55, SEQ ID NO. 56, SEQ ID NO. 57, and SEQ ID NO. 58, where

"x" in the recited SEQ ID NOs., independently of one another, represents a phosphodiester internucleoside bridge or a modified internucleoside bridge, and

"y" in the recited SEQ ID NOs., independently of one another, represents the replacement of a sugar phosphate unit or of a β -D-2'-deoxyribose unit, the modified β -D-2'-deoxyribose unit being located at the 3'- end of "y".

34. (Previously Presented) The oligonucleotide according to claim 33, where "y" represents 2' O-methyl-, 2'-O-propyl- or 2'-methoxyethoxyribose, or a PNA unit.

35. (Canceled).

36. - 40. (Canceled).

Application No. 09/554,267

41. (Previously Presented) A process for the production of a pharmaceutical comprising mixing an efficacious dose of one or more oligonucleotides according to claim 32 with one or more pharmaceutical vehicles and/or additives.

42. (Previously Presented) A process for the preparation of an oligonucleotide according to claim 32, said process comprising synthesizing the oligonucleotide on a solid phase.

43. (Previously Presented) A diagnostic comprising one or more oligonucleotides according to claim 32.

44. (Previously Presented) A test kit comprising one or more oligonucleotides according to claim 32.

45. (Previously Presented) The oligonucleotide of claim 32, wherein the oligonucleotide consists of SEQ ID NO: 21.

46. (Previously Presented) The oligonucleotide of claim 32, wherein the oligonucleotide consists of SEQ ID NO: 22.

47. (Previously Presented) The oligonucleotide of claim 32, wherein the oligonucleotide consists of SEQ ID NO: 23.

Application No. 09/554,267

48. (Previously Presented) The oligonucleotide of claim 32, wherein the oligonucleotide consists of SEQ ID NO: 24.

49. (Previously Presented) The oligonucleotide of claim 32, wherein the oligonucleotide consists of SEQ ID NO: 25.

50. (Previously Presented) The oligonucleotide of claim 32, wherein the oligonucleotide consists of SEQ ID NO: 26.

51. (Previously Presented) The oligonucleotide of claim 32, wherein the oligonucleotide consists of SEQ ID NO: 27.

52. (Previously Presented) The oligonucleotide of claim 32, wherein the oligonucleotide consists of SEQ ID NO: 28.

53. (Previously Presented) The oligonucleotide of claim 32, wherein the oligonucleotide consists of SEQ ID NO: 29.

54. (Previously Presented) The oligonucleotide of claim 32, wherein the oligonucleotide consists of SEQ ID NO: 30.

55. (Withdrawn) The oligonucleotide of claim 26, wherein the oligonucleotide consists of SEQ ID NO:12.

56. (Withdrawn) The oligonucleotide of claim 26, wherein the oligonucleotide consists of SEQ ID NO:13.

57. (Withdrawn) The oligonucleotide of claim 26, wherein the oligonucleotide consists of SEQ ID NO:14.

58. (Withdrawn) The oligonucleotide of claim 26, wherein the oligonucleotide consists of SEQ ID NO:15.

59. (Withdrawn) The oligonucleotide of claim 26, wherein the oligonucleotide consists of SEQ ID NO:16.

60. (Withdrawn) The oligonucleotide of claim 26, wherein the oligonucleotide consists of SEQ ID NO:17.

61. (Withdrawn) The oligonucleotide of claim 26, wherein the oligonucleotide consists of SEQ ID NO:19.

62. (Withdrawn) The oligonucleotide of claim 26, wherein the oligonucleotide consists of SEQ ID NO:20.

63. (Previously Presented) An *in vitro* method for inhibiting expression of tenascin by a cell, said method comprising exposing said cell to an oligonucleotide comprising a sequence selected from SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, and SEQ ID NO: 30.